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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,994	01/19/2006	William Neuberg	P/4661-100	2233

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NEW YORK, NY 100368403

EXAMINER

HUTCHINSON, SHAWN R

ART UNIT	PAPER NUMBER
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1709

MAIL DATE	DELIVERY MODE
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09/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,994	Applicant(s) NEUBERG, WILLIAM	
	Examiner Shawn R. Hutchinson	Art Unit 1709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2005 is/are: a) ☒ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>28 June 2005 & 05 May 2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claims Objections

2. Claim 15 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The Examiner notes that instant Claims 14 and 15 are identical.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-6, 8-9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by McKee, G. et al. {McKee} (DE 3821481 A).

McKee teaches a method of producing thermoplastic polymers with fluoro-ethylene polymers (FEP), a polymer group comprising PTFE, (Pg5, Pa5-Pg6, Pa1 | Cm1-4). The particle size range 0.5- to 30- μ m (sub- to low-micron size) of the FEP is between of weight percent 2 to 60%, is added to a thermoplastic melt via a watery (aqueous) dispersion or suspension, and then extruded. Fibers are listed as one article this blend is particularly suited, (Pg7, Pa4). Thermoplastic resins include vinyls, olefins, acrylics, polyesters, and amides, (Pg4, Pa2-Pg6, Pa1).

5. Claims 1, 7, 12, 13, 17, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Takayuki (JP 07-145511 A). Takayuki claims a polyester monofilament with 0.1 to 10% PTFE particles less than 5- μ m diameter, (Cm1), for canvas, [0001].

Filter packing is cited as a problem for particles above this size, [0011].

6. Claims 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Koshirai, A. et al. {Koshirai} (US 6025441 A).

Koshirai claims a thermoplastic resin that comprises PTFE powder of 0.05 to 1- μ m, (Cm4). Weight percents from 0.001 to 50, (C5:L59-64), sizes less than 10- μ m, (C2:L3-5), and high dispersibility of the PTFE, (C4:L63-C5:L4), are taught and shown by example, (Ex1-20 | T1,3,5). Fibers comprising the resin are also taught, (Cm9).

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKee, G. et al. {McKee} (DE 3821481 A).

McKee teaches a method of producing thermoplastic polymers with fluoro-ethylene polymers (FEP), a polymer group comprising PTFE, (Pg5, Pa5-Pg6, Pa1 | Cm1-4). The particle size range 0.5- to 30-µm (sub- to low-micron size) of the FEP is between of weight percent 2 to 60%, is added to a thermoplastic melt via a watery (aqueous) dispersion or suspension, and then extruded. Fibers are listed as one article this blend is particularly suited, (Pg7Pa4). Resins include vinyls, olefins, acrylics, polyesters, and amides, (Pg4Pa2–Pg6Pa1). McKee lacks detailed fiber examples.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to follow the teachings regarding the method of making a fiber comprising mostly thermoplastic polymers with particles of PTFE {McKee} and claim the fiber in obvious variant embodiments as does Applicant. McKee provides the requisite teachings for extrusion of polymer comprising PTFE particles, materials required, properties of the particles, and means of introducing particles to the melt. Fibers are often made into fabrics, textiles, and carpets, and this application would have been obvious to one of

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ordinary skill in the art. Motivation would be to derive benefits of the PTFE particles such as wettability, friction, and chemical resistance properties of PTFE in a thermoplastic fiber. Furthermore, routine experimentation and refinement of overlapping ranges is considered well within the ability of one generally skilled in the art. The courts have held, where claimed ranges "overlap or lie inside ranges disclosed by the prior art," obviousness exists *prima facie*, see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976) and "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation," see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Therefore, it would have been obvious to follow the teachings by McKee and obtain the invention as specified.

9. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKee, G. et al. {McKee} (DE 3821481 A) in view of Fourné (*Synthetic Fibers*).

McKee teaches thermoplastic fibers comprising PTFE particles, but lacks teaching the relative size of the capillaries with respect to the PTFE particles in addition to the particles being a component of a bicomponent fiber.

Based on the size of the particles and the diameters of standard spinneret capillaries (Fourné, Pg331), a claim for extruding the composite material through a capillary larger than the FEP particle size is obvious to one of ordinary skill in the art.

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Fourné teaches bi-component filaments whereby additives are often used as a basis for defining the different components of the filament and can be added as masterbatches or injected into different streams, ({Fourné} Pg546 | F5.26-5.28).

At the time of the invention, it would have been obvious to one of ordinary skill to combine the bicomponent with additive {Fourné} with one thermoplastic component containing PTFE {McKee}. The motivation would have been to improve the processing, ({McKee} Page 2, Paragraph 2), and to derive known wetting, frictional, and chemical resistance properties of PTFE in addition to the properties of a secondary material in a bicomponent filament or yarn. Thus, it would have been obvious to combine McKee with Fourné and obtain the invention as specified.

10. Claims 14-16 and 19 are rejected under 35 U.S.C. 103(a) as being obvious over Takayuki (JP 07-145511 A) as applied to Claim 13 in view of Koshirai, A. et al. {Koshirai} (US 6025441 A).

Takayuki teaches a polyester monofilament that includes 0.1 to 10% PTFE particles with a size of less than 5- μ m, (Cm1), for canvas, [0001]. Takayuki lacks teaching how the particles are added to the filament and how they are distributed.

Koshirai claims a thermoplastic resin that comprises PTFE powder of 0.05 to 1- μ m, (Cm4). Weight percents from 0.001 to 50, (C5L59-64), sizes less than 10- μ m, (C2L3-5), and high dispersibility of the PTFE, (C4L63-C5L4), are taught and shown by example, (Ex1-20 | T1,3,5). Both lack teaching that the fibers can be used for carpet.

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At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the teaching for textile fabric comprising a polyester monofilament with a minor amount of micron-sized PTFE particles {Takayuki} and the means for adding and distributing the particles {Koshirai} for other fibrous materials. The motivation would have been to derive benefit from the hydrolysis resistance and resilience, or flex-abrasion resistance, [0006], in fibers and products therefrom. Carpets are a known application of fibers. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation," see *in re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Therefore, it would have been obvious to modify the teaching of Takayuki and obtain the invention as specified.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for more details.

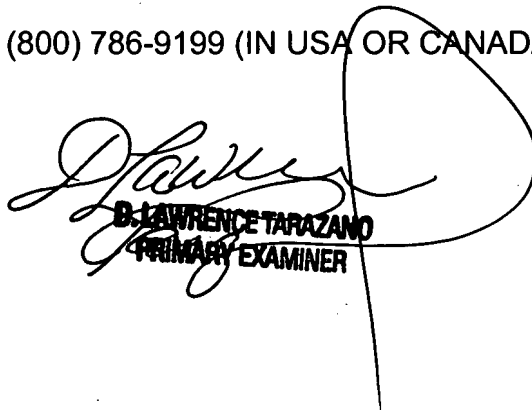
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Conclusion

Any inquiry concerning this communication from the Examiner should be directed to Shawn R. Hutchinson whose telephone number is (571) 270-1546. The Examiner can normally be reached on 7 AM to 5 PM, M-F, odd Fridays off.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 271-1515. The fax phone number for the organization where this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call (800) 786-9199 (IN USA OR CANADA) or (571) 272-1000.



D. LAWRENCE TARAZANO
PRIMARY EXAMINER

Shawn R. Hutchinson
Examiner
Art Unit 1709